



Minnesota Pollution
Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate
Storm Sewer System (MS4) Permit MNR040000
reissued with an effective date of August 1, 2013
Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. **No fee** is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at <http://www.pca.state.mn.us/ms4>.

Submittal: This MS4 SWPPP Application for Reauthorization form must be submitted electronically via e-mail to the MPCA at ms4permitprogram.pca@state.mn.us from the person that is duly authorized to certify this form. All questions with an asterisk (*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or claudia.hochstein@state.mn.us, Dan Miller at 651-757-2246 or daniel.miller@state.mn.us, or call toll-free at 800-657-3864.

General Contact Information (*Required fields)

MS4 Owner (with ownership or operational responsibility, or control of the MS4)

*MS4 permittee name: St. Cloud State University (SCSU) *County: Stearns & Benton
(city, county, municipality, government agency or other entity)
*Mailing address: Facilities Management - 720 Fourth Avenue South
*City: St. Cloud *State: MN *Zip code: 56301
*Phone (including area code): 320.308.2145 *E-mail: jmtteff@stcloudstate.edu

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

*Last name: Teff *First name: Joseph
(department head, MS4 coordinator, consultant, etc.)
*Title: Safety Administrator
*Mailing address: Facilities Management - 720 Fourth Avenue South
*City: St. Cloud *State: MN *Zip code: 56301
*Phone (including area code): 320.308.2145 *E-mail: jmtteff@stcloudstate.edu

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Ryan First name: April
(department head, MS4 coordinator, consultant, etc.)
Title: Water Resources Engineer
Mailing address: SEH, 1200 25th Avenue South
City: St. Cloud State: MN Zip code: 56302
Phone (including area code): 320.492.4329 E-mail: aryan@sehinc.com

Verification

1. I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this MS4 SWPPP Application for Reauthorization form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). ☒ Yes
2. I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. ☒ Yes

Certification (All fields are required)

- ☒ Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name: Joesph Teff
(This document has been electronically signed)

Title: Safety Administrator Date (mm/dd/yyyy): 12/10/2013

Mailing address: Facilities Management - 720 Fourth Avenue South

City: St. Cloud State: MN Zip code: 56301

Phone (including area code): 320.308.2145 E-mail: jmtteff@stcloudstate.edu

Note: The application will not be
processed without certification.

Stormwater Pollution Prevention Program Document

I. Partnerships: (Part II.D.1)

- A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

☐ No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved
Central Minnesota Water Education Alliance (CMWEA)	MCM 1
City of St. Cloud	MCM 2, MCM 3, MCM 4, MCM 5

- B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere_Partnerships*.

Central Minnesota Water Education Alliance (CMWEA) is a coalition of central Minnesota MS4's and other organizations that provide educational outreach to promote water quality stewardship. The mission of CMWEA is to develop and implement educational programs that encourage individuals in Central Minnesota to protect water resources by increasing their knowledge and making simple behavior changes. By working in concert, the members of CMWEA are able to provide a consistent water quality educational message.

MS4 permitted CMWEA members include the Cities of St. Cloud, Sartell, Sauk Rapids, Waite Park, St. Joseph; Stearns County; St. Joseph Township, Le Sauk Township; St. Cloud State University; and MNDOT. Other members include the Cities of Cold Spring, Melrose, Rockville, Paynesville and Richmond; Stearns County Soil and Water Conservation District; Sauk River Watershed District; and the Sauk River Chain of Lakes Association.

CMWEA members are required to sign a membership agreement which includes membership dues and a member participation requirement. Both are critical to ensure maximum benefit to each member and the public. CMWEA is dedicated to assist members meet education requirements through a variety of tools and resources. Members have access to all of CMWEA's past and current education material to use beyond CMWEA's programs and to specifically target additional local education needs. CMWEA annually evaluates its education program to ensure the needs of each member are met and to meet associated permit requirements. Please visit our website for more information: www.mnwaterconnection.com

II. Description of Regulatory Mechanisms: (Part II.D.2)

Illicit discharges

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)? ☒ Yes ☐ No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

☐ Ordinance ☐ Contract language
☒ Policy/Standards ☐ Permits
☐ Rules
☐ Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Saint Cloud State Storm Water Program – Storm Water Compliance Policy

City of St. Cloud Illicit Discharge Detection and Elimination Ordinance

Direct link:

http://www.stcloudstate.edu/osh/storm_water/policy_procedures/default.asp

http://www.stcloudstate.edu/osh/storm_water/scsu_ms4_permit/default.asp

☐ Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_IDDEreg*.

2. If **no**:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

SCSU has developed and enforces its Stormwater Compliance Policy which includes Discharge Prohibitions for illegal discharges, illicit connections, and spills into the storm drain system. Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the City's Illicit Discharge Detection and Elimination Ordinance. SCSU supports the city's ordinances.

Construction site stormwater runoff control

A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls? ☒ Yes ☐ No

1. If **yes**:

a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- ☐ Ordinance ☐ Contract language
☒ Policy/Standards ☐ Permits
☐ Rules
☐ Other, explain: _____

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Saint Cloud State Storm Water Program – Storm Water Compliance Policy

City of St. Cloud Erosion and Sediment Control Ordinance

Direct link:

http://www.stcloudstate.edu/osh/storm_water/policy_procedures/default.asp

http://www.stcloudstate.edu/osh/storm_water/scsu_ms4_permit/default.asp

☐ Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_CSWreg*.

B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)? ☒ Yes ☐ No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

SCSU has developed and enforces its Stormwater Compliance Policy which requires compliance with the MPCA Construction Stormwater Permit (CSW). Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the city's Erosion and Sediment Control Ordinance. SCSU supports the city's ordinances.

C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below:

- | | |
|---|---|
| 1. Best Management Practices (BMPs) to minimize erosion. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. BMPs to minimize the discharge of sediment and other pollutants. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. BMPs for dewatering activities. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4. Site inspections and records of rainfall events | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. BMP maintenance | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Management of solid and hazardous wastes on each project site. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 7. Final stabilization upon the completion of construction activity, including the use of perennial | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

vegetative cover on all exposed soils or other equivalent means.

8. Criteria for the use of temporary sediment basins.

☐ Yes ☒ No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.3. SCSU's policy does not directly require BMPs for dewatering activities; however, the policy requires that construction projects meet the NPDES Construction Permit which includes requirements for dewatering activities. SCSU will review and update their policy as needed to include requirements for dewatering activities, in accordance with Permit requirements (Part III.D.4.a). This effort will be completed within 12 months of the date permit coverage is extended.

C.6. SCSU's policy does not have specific requirements for the management of solid and hazardous waste, however, the policy requires that construction projects meet the NPDES Construction Permit which includes requirements for managing solid and hazardous waste. SCSU will review and update their policy as needed to include requirements for the management of solid and hazardous waste, in accordance with permit requirements (Part III.D.4.a). This effort will be completed within 12 months of the date permit coverage is extended.

C.7. SCSU's policy does not have specific requirements for the final stabilization of projects; however, the policy requires that construction projects meet the NPDES Construction Permit which includes requirements for final stabilization. SCSU will review and update their policy as needed to include requirements for the final stabilization of projects, in accordance with permit requirements (Part III.D.4.a). This effort will be completed within 12 months of the date permit coverage is extended.

C.8. SCSU's policy does not have specific requirements for the use of temporary sediment basins; however, the policy requires that construction projects meet the NPDES Construction Permit which includes requirements for the use of temporary sediment basins. SCSU will review and update their policy as needed to include requirements for the use of temporary sediment basins, in accordance with permit requirements (Part III.D.4.a). This effort will be completed within 12 months of the date permit coverage is extended.

Post-construction stormwater management

A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities?

☒ Yes ☐ No

1. If **yes**:

a. Check which type of regulatory mechanism(s) your organization has (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Ordinance | <input type="checkbox"/> Contract language |
| <input checked="" type="checkbox"/> Policy/Standards | <input type="checkbox"/> Permits |
| <input type="checkbox"/> Rules | |
| <input type="checkbox"/> Other, explain: _____ | |

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Saint Cloud State Storm Water Program – Storm Water Compliance Policy

City of St. Cloud Land Development Code Article 19 and Appendix F

Direct link:

http://www.stcloudstate.edu/osh/storm_water/policy_procedures/default.asp

<http://mn-stcloud.civicplus.com/DocumentCenter/View/4084>

<http://mn-stcloud.civicplus.com/DocumentCenter/Home/View/825>

☐ Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_PostCSWreg.*

B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1. **Site plan review:** Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review and approval, prior to start of construction activity. ☒ Yes ☐ No
2. **Conditions for post construction stormwater management:** Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):

- a. For new development projects – no net increase from pre-project conditions (on an annual average basis) of: ☐ Yes ☒ No
- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
 - 2) Stormwater discharges of Total Suspended Solids (TSS).
 - 3) Stormwater discharges of Total Phosphorus (TP).
- b. For redevelopment projects – a net reduction from pre-project conditions (on an annual average basis) of: ☐ Yes ☒ No
- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
 - 2) Stormwater discharges of TSS.
 - 3) Stormwater discharges of TP.
3. **Stormwater management limitations and exceptions:**
- a. Limitations
- 1) Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas: ☐ Yes ☒ No
 - a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.
 - b) Where vehicle fueling and maintenance occur.
 - c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
 - d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
 - 2) Restrict the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas: ☐ Yes ☒ No
 - a) With predominately Hydrologic Soil Group D (clay) soils.
 - b) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.
 - c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
 - d) Where soil infiltration rates are more than 8.3 inches per hour.
 - 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow exceptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process. ☐ Yes ☒ No
4. **Mitigation provisions:** The permittee's regulatory mechanism(s) shall ensure that any stormwater discharges of TSS and/or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:
- a. Mitigation project areas are selected in the following order of preference: ☐ Yes ☒ No
 - 1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
 - 2) Locations within the same Minnesota Department of Natural Resource (DNR) catchment area as the original construction activity.
 - 3) Locations in the next adjacent DNR catchment area up-stream
 - 4) Locations anywhere within the permittee's jurisdiction.
 - b. Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP. ☐ Yes ☒ No
 - c. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements of this part. ☐ Yes ☒ No
 - d. Mitigation projects shall be completed within 24 months after the start of the original construction activity. ☐ Yes ☒ No
 - e. The permittee shall determine, and document, who will be responsible for long-term maintenance on all mitigation projects of this part. ☐ Yes ☒ No
 - f. If the permittee receives payment from the owner and/or operator of a construction activity ☐ Yes ☒ No

for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management in Part III.D.5.a(2), the permittee shall apply any such payment received to a public stormwater project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e).

5. **Long-term maintenance of structural stormwater BMPs:** The permittee's regulatory mechanism(s) shall provide for the establishment of legal mechanisms between the permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs not owned or operated by the permittee, that have been implemented to meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)). This only includes structural stormwater BMPs constructed after the effective date of this permit and that are directly connected to the permittee's MS4, and that are in the permittee's jurisdiction. The legal mechanism shall include provisions that, at a minimum:

- a. Allow the permittee to conduct inspections of structural stormwater BMPs not owned or operated by the permittee, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator of that structural stormwater BMP has not conducted maintenance. ☒ Yes ☐ No
- b. Include conditions that are designed to preserve the permittee's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the permittee, when those responsibilities are legally transferred to another party. ☒ Yes ☐ No
- c. Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with the Permit (Part III.D.5.a(2)). If site configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met. ☒ Yes ☐ No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

SCSU has developed and enforces its Stormwater Compliance Policy which includes post construction stormwater management. Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the city's Ordinances. SCSU supports the city's ordinances.

B.2.a -b: SCSU's policy currently requires that post construction drainage design and stormwater management meet the standards and specifications of their Storm Water Compliance Policy, NPDES CSW Permit, and the City of St. Cloud ordinances. SCSU's current policy has requirements for volume control, but does not have requirements for the post construction management of TSS and TP. SCSU will review and update their policy as necessary to include requirements for the post construction management of volume, total suspended solids, and total phosphorous in accordance with permit requirements (Part III.D.5.a(2)). This effort will be completed within 12 months of the date permit coverage is extended.

B.3.a.1-3: SCSU's current policy has requirements for volume control, but does not include limitations (prohibiting, restricting, and exceptions) for infiltration. SCSU will review and amend their policy as necessary to include limitations for infiltration to address post-construction stormwater management, in accordance with Permit requirements (Part III.D.5.a (3)). This effort will be completed within 12 months of the date permit coverage is extended.

B.4.a-f: SCSU will assess the need to include mitigation provisions for post construction stormwater management of TSS and/or TP in their policy. SCSU will update their policy as needed and in accordance with permit requirements (Part III.D.5.a(4)). This effort will be completed within 12 months of the date permit coverage is extended.

B.5.a-c: SCSU is a unique MS4 in that they own and operate all stormwater management BMPs within their jurisdiction. SCSU policy identifies the Facilities Management Department as the responsible entity for planning, funding, operation, and maintenance of the storm water conveyance system and storm water BMPs. Because of the nature of the University's role as an MS4 and the fact that all structural BMPs are owned by the University, the development of a legal mechanism for long-term maintenance of structural BMPs is not necessary and does not apply.

III. Enforcement Response Procedures (ERPs): (Part II.D.3)

- A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)? ☐ Yes ☒ No

- 1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere_ERPs*.
- 2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:

SCSU's Storm Water Compliance Policy does not include written ERPs. However, SCSU's property is located within the City of St. Cloud and is subject to the City of St. Cloud's Ordinances and Policies, which do include written ERPs. SCSU will review and update their policy as needed and in accordance with permit requirements (Part III.D.3). This effort will be

completed within 12 months of the date permit coverage is extended.

B. Describe your ERPs:

IDDE

SCSU's policy does not have specific written ERPs for IDDE, however, SCSU's property is located within the City of St. Cloud and is subject to the city's IDDE Ordinance, which includes written ERPs

Erosion and Sediment Control and Post Construction

Failure to comply with SCSU's Storm Water Compliance Policy may result in a formal project review and appropriate corrective actions, up to and including work stoppages. Additionally, SCSU's property is located within the City of St. Cloud and is subject to the city's Ordinances, which includes written ERPs for both ESC and Post-Construction.

IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

SCSU's sewer system map is currently maintained in GIS format and includes the stormwater conveyance system, ponds, structural BMPs, water bodies, and outfalls. The Land Surveying Division of SCSU's Geography Department has located and incorporated into the mapping all manholes, catch basins, drywells, flumes, grates, inlet structure, and inverts.

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1. The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes. ☒ Yes ☐ No
2. Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate. ☒ Yes ☐ No
3. Structural stormwater BMPs that are part of the permittee's small MS4. ☒ Yes ☐ No
4. All receiving waters. ☒ Yes ☐ No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172. Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1. All ponds within the permittee's jurisdiction that are constructed and operated for purposes of water quality treatment, stormwater detention, and flood control, and that are used for the collection of stormwater via constructed conveyances. ☐ Yes ☒ No
2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed conveyances. ☐ Yes ☒ No

D. Answer **yes** or **no** to indicate whether you have completed the following information for each feature inventoried.

1. A unique identification (ID) number assigned by the permittee. ☒ Yes ☐ No
2. A geographic coordinate. ☒ Yes ☐ No
3. Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional judgment. ☒ Yes ☐ No

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.1-2: SCSU has inventoried all stormwater treatment ponds, wetlands, and lakes within their jurisdiction, but have not filled out the required inventory form provided by the MPCA. SCSU will complete and submit the inventory form provided by the MPCA commissioner in accordance with permit requirements (Part III.C.2). This effort will be

completed within 12 months of the date permit coverage is extended.

- E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA ☐ Yes ☒ No on the form provided on the MPCA website at: <http://www.pca.state.mn.us/ms4> , according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere_inventory*.

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

V. Minimum Control Measures (MCMs) (Part II.D.5)

A. MCM1: Public education and outreach

1. The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your **current** educational program, including **any high-priority topics included**:

SCSU's current education program is implemented through two different approaches:

1) The Central MN Water Education Alliance (CMWEA)

CMWEA, as described in the partnership section, is utilized to meet the established BMPs shown below. CMWEA is dedicated to developing and implementing educational programs that encourage individuals in Central Minnesota to protect water resources by increasing their knowledge and making simple behavior changes. CMWEA is operated through membership dues, member staff participation, grants, sponsorship and in-kind support. The annual education program has consisted of:

-Annual top 10 water protection tips (high priority topics as chosen by the members)

-Media ad campaign based on the top 10 list which includes various print media, radio ads, videos on local cable channels and billboard

-High School TV Ad Contest

-Social Media (Facebook)

-Website which includes the top 10, blog, member contact information, promotional tools, outreach, and lots of education information and links.

-Traveling Education Booth and Library that shows up a several area events and workshops

-Rain barrel and compost bin sale

-Handouts (brochures, member material & info, seed packets, etc)

2) Direct SCSU modes.

In addition to CMWEA, SCSU implements an extended education program which includes:

-Distribution of educational materials.

SCSU provides Contractor Safety and Security Manual to contractors working within SCSU campus.

- Maintain SCSU website which includes water resources information and links, including:

SCSU MS4 permit, SWPPP, annual reports, policies, and related documents.

Links to City of St. Cloud Ordinances

SCSU contact information for reporting illicit discharges, non-compliance, providing input, and asking questions.

Map of SCSU campus, storm sewer, and structural BMPs

Inspection reports and forms

Links and resources to additional water resources information

- Meetings

Conduct regular in house staff Environmental Health & Safety Meetings, where water resource topics are often discussed.

- Cleanup Programs

SCSU's Outdoors Endeavor's program hosts and organizes a yearly clean-up event

- Storm Drain Stenciling

SCSU intends to continue implementing a similar education program as described above

SCSU's current education efforts emphasize on illicit discharges, construction site runoff, and post construction stormwater management. SCSU will work in conjunction with CMWEA to identify areas of priority to focus education efforts on moving forward.

- List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Distribution of Educational Material	Annually: Review and update information
	Annually: Review and update information Ongoing: Post IDDE reporting information Ongoing: Maintain links to SCSU specific and other additional water resources information.
SCSU Website	Ongoing: Conduct Environmental Health & Safety Meetings
Meetings	Ongoing: Continue SCSU Outdoors Endeavor's yearly clean-up event.
Cleanup Programs	Ongoing: Work in conjunction with the City of St. Cloud to stencil storm drains as they are installed.
Storm Drain Stenciling	
BMP categories to be implemented	Measurable goals and timeframes
	BMP Description: Continue to be a member of the Central Minnesota Water Education Alliance (CMWEA) and comply with its membership agreement. Measureable Goals 1) Within 2 months of receiving the annual CMWEA membership agreement, it will be signed and returned to CMWEA. Timeline/Implementation Schedule: Annually: Renew CMWEA membership Annually: Meet membership requirements Annually: Participate in CMWEA to ensure it helps meet the needs of our MS4
Central Minnesota Water Education Alliance (CMWEA)	BMP Description: Continue to be a member of the Central Minnesota Water Education Alliance (CMWEA) and support the use of its website to spread education messages. Measureable Goals Promote CMWEA's website with a goal of it reaching 50,000 hits annually CMWEA will add specific illicit discharge recognition and reporting to its website Review the website for updates at least twice a year Timeline/Implementation Schedule: Annually: Provide a link on our local website to CMWEA's website. Within 3 months of all members having an approved SWPPP document, the website will be updated on recognition and reporting of illicit discharges – we will provide information to CMWEA as requested. Twice a year, review and update the website with new, relevant information.
CMWEA: Website	BMP Description: Continue to be a member of the Central Minnesota Water
CMWEA: Education Campaign	

	<p>Education Alliance (CMWEA) and support/participate in the annual education campaign. Annually CMWEA will implement an education campaign/program.</p> <p>CMWEA annually reviews its program elements to ensure the campaign meets the high priority needs of its members and covers new education topics. The campaign is also adjusted to achieve the highest education value by reviewing different marketing strategies and education opportunities to impact intended target audiences. Therefore, CMWEA's education program changes over time.</p> <p>Measureable Goals</p> <p>CMWEA has a goal of being represented at 3 area events annually</p> <p>CMWEA has a goal of providing education through 3 different marketing/campaign tactics</p> <p>CMWEA provides at least 2 opportunities for member input on the annual campaign</p> <p>Timeline/Implementation Schedule:</p> <p>Annually: Provide input on CMWEA's education campaign to ensure our high priority needs are emphasized</p> <p>Within 6 months of all members having an approved SWPPP document, the current education program elements will be reviewed, updated and modified. This process has started with the reissuance of this permit.</p>
Documentation	<p>Within 12 months of the date permit coverage is extended:</p> <p>Update program to include documentation requirements in accordance with permit requirements (Part III.D.1.c).</p>

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Safety Administrator

B. MCM2: Public participation and involvement

1. The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

SCSU holds an annual public meeting, in conjunction with other local MS4s, to review program details and program progress with the public. The meeting also provides an opportunity for the public to give input and/or ask questions. The meeting is noticed in the local paper following applicable public notice requirements. SCSU takes into consideration both written and verbal forms of public input at the meeting and throughout the year. SCSU maintains a point of contact and phone number for use by the public to report illicit discharges, report stormwater noncompliance concerns, and/or provide input, give comments, and/or ask questions about the MS4 program. Contact information is provided on SCSU's website.

SCSU posts its SWPPP and other water resources information on its website for the public to access at any time. SCSU also makes the SWPPP and other permit related information available as requested.

2. List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Public Meeting	<p>Annually: Continue to hold public meeting following applicable public notice requirements.</p> <p>Ongoing: Continue to post SWPPP and other water resources information on SCSU's website.</p> <p>Ongoing: Continue to provide reporting and comment contact information on SCSU's website.</p> <p>Ongoing: Continue to provide SWPPP and other permit documents as requested.</p>
SWPPP and Permit Document Access	<p>Ongoing: Continue to solicit and respond to public comments during annual public meeting and throughout the year, making</p>
Solicit and Consider Public Opinion	

	changes to the program where necessary.
BMP categories to be implemented	Measurable goals and timeframes
Documentation	Within 12 months of the date permit coverage is extended: Update program to include documentation requirements in accordance with permit requirements (Part III.D.2.b).

3. Do you have a process for receiving and documenting citizen input? ☒ Yes ☐ No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Safety Administrator

C. MCM 3: Illicit discharge detection and elimination

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

SCSU maintains and annually updates a Storm Sewer System Map in GIS format, which includes the stormwater conveyance system, ponds, structural BMPs, water bodies, and outfalls. The Land Surveying Division of SCSU's Geography Department has located and incorporated into the mapping all manholes, catch basins, drywells, flumes, grates, inlet structure, and inverts.

SCSU has a Stormwater Compliance Policy which includes Discharge Prohibitions for illegal discharges, illicit connections, and spills into the storm drain system. Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the City's Illicit Discharge Detection and Elimination Ordinance.

SCSU conducts regular inspections of its stormwater system and conducts site specific inspections as reports are received. SCSU completes dry weather inspections of, at a minimum, 20% of the storm sewer system outfalls, as well as pond inlets and outlets each year. SCSU staff is watchful for signs of illicit discharges while conducting daily activities and continually explores opportunities to expand existing inspection programs to identify illicit connections and illegal dumping.

SCSU maintains a phone number and contact information on their website for reporting illicit discharges.

SCSU annually reviews sources of non-stormwater discharges or flows to evaluate the significance of each potential source. SCSU utilizes inspection reports to identify priority areas likely to have illicit discharges.

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

- Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.e.-f.) Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation). ☒ Yes ☐ No
- Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools. ☒ Yes ☐ No
- Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation. ☐ Yes ☒ No
- Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge. ☒ Yes ☐ No
- Procedures for the timely response to known, suspected, and reported illicit discharges. ☒ Yes ☐ No
- Procedures for investigating, locating, and eliminating the source of illicit discharges. ☒ Yes ☐ No

- g. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the small MS4. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061. ☒ Yes ☐ No
- h. When the source of the illicit discharge is found, the permittee shall use the ERPs required by the Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s). ☒ Yes ☐ No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.2.c SCSU will review and update their staff training program, to include information on IDDE in accordance with permit requirements (Part III.D.3.e). This effort will be completed within 12 months of the date permit coverage is extended.

3. List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Storm Sewer System Map	Annually: Review and update.
Regulatory Mechanism	Ongoing: Continue to enforce requirements. Annually: Review and update as needed.
Detection and Elimination	Ongoing: Respond/ inspect reports of illicit discharges. Annually: Inspect of 20% of outfalls and ponds. Ongoing: Maintain a contact for reporting illicit discharges. Ongoing: Provide illicit discharge reporting information on website. Annually: Review and update Detection and Elimination program as needed.
Identification of Non Stormwater Discharges and Flows	Annually: Evaluate the significance of each potential non-stormwater source, identifying priority areas likely to have illicit discharges.
BMP categories to be implemented	Measurable goals and timeframes
Illicit Discharge Information Program	Within 12 months of the date permit coverage is extended: Review and update staff training program to include information on IDDE in accordance with permit requirements (Part III.D.3.e)
Documentation	Within 12 months of the date permit coverage is extended: Update program to include documentation requirements in accordance with permit requirements (Part III.D.3.h).

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)? ☐ Yes ☒ No

If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

C.4 SCSU will review and update their documentation process as needed to meet permit requirements (Part III.D.3.h). This effort will be completed within 12 months of the date permit coverage is extended.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Safety Administrator

D. MCM 4: Construction site stormwater runoff control

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

SCSU has a Stormwater Compliance Policy which establishes requirements for erosion and sediment controls on construction sites. Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the city's Erosion and Sediment Control Ordinance. SCSU's education program, permitting process, and policies ensure the use of appropriate planning tools, ESC BMPs, and waste controls on construction sites. SCSU provides Contractor Safety and Security Manual to contractors working within SCSU campus.

SCSU's procedures for site plan review include review and approval by SCSU staff and/or consultant.

SCSU maintains a phone number on their website for the public to provide input, report noncompliance and/or other construction site stormwater information.

SCSU currently inspects construction sites to review compliance with code and permit requirements. SCSU's policy also requires contractors to conduct regular site and rainfall inspections.

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):
 - a. Have you established written procedures for site plan reviews that you conduct prior to the start of construction activity? ☒ Yes ☐ No
 - b. Does the site plan review procedure include notification to owners and operators proposing construction activity that they need to apply for and obtain coverage under the MPCA's general permit to Discharge Stormwater Associated with Construction Activity No. MN R100001? ☒ Yes ☐ No
 - c. Does your program include written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the permittee? ☐ Yes ☒ No
 - d. Have you included written procedures for the following aspects of site inspections to determine compliance with your regulatory mechanism(s):
 - 1) Does your program include procedures for identifying priority sites for inspection? ☐ Yes ☒ No
 - 2) Does your program identify a frequency at which you will conduct construction site inspections? ☐ Yes ☒ No
 - 3) Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections? ☐ Yes ☒ No
 - 4) Does your program include a checklist or other written means to document construction site inspections when determining compliance? ☒ Yes ☐ No
 - e. Does your program document and retain construction project name, location, total acreage to be disturbed, and owner/operator information? ☒ Yes ☐ No
 - f. Does your program document stormwater-related comments and/or supporting information used to determine project approval or denial? ☒ Yes ☐ No
 - g. Does your program retain construction site inspection checklists or other written materials used to document site inspections? ☒ Yes ☐ No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

D.2.c SCSU has a process for the receipt and consideration of construction site noncompliance reports and other stormwater related input; however, there are currently no written procedures for this process. SCSU will update its program for receipt and consideration of public stormwater reports to include written procedures in accordance with permit requirements (Part III.D.4.c). This effort will be completed within 12 months of the date permit coverage is extended.

D.2. d.1-3 SCSU has a written process and inspection checklist for site inspections; which is outlined within their Stormwater Compliance Policy and Contractor Safety and Security Manual. SCSU will review and update its current site inspection process as needed to include written procedures and documentation requirements in accordance with permit requirements (Part III.D.4.d & f). This effort will be completed within 12 months of the date permit coverage is extended.

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Regulatory Mechanism	Ongoing: Continue to enforce requirements. Annually: Review and update as needed.
Site Plan Review	Ongoing: Review site plans for compliance with SCSU policies, local ordinances, and permits.
Receipt and Consideration of Stormwater Noncompliance Reports.	Ongoing: Maintain contact for reporting noncompliance. Ongoing: Provide reporting contact information on SCSU

	website.
Site Inspections and Enforcement	Ongoing: Conduct inspections for compliance with SCSU policies, local ordinances, and permits.
BMP categories to be implemented	Measurable goals and timeframes
Regulatory Mechanism	Within 12 months of the date permit coverage is extended: Review and update as necessary to meet permit requirements (Part III.D.4.a).
Site Plan Review	Within 12 months of the date permit coverage is extended: Review and update site plan review process as needed, in accordance with permit requirements (Part III.D.4.b & f)
Receipt and Consideration of Stormwater Noncompliance Reports.	Within 12 months of the date permit coverage is extended: Develop written procedures for receipt and consideration of construction site noncompliance reports in accordance with permit requirements (Part III.D.4.c & f)
Site Inspections and Enforcement	Within 12 months of the date permit coverage is extended: Review and update site inspection procedures as needed, in accordance with permit requirements (Part III.D.4.d & f).
Documentation	Within 12 months of the date permit coverage is extended: Update program to include documentation requirements in accordance with permit requirements (Part III.D.4.f).

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Safety Administrator

E. MCM 5: Post-construction stormwater management

1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

SCSU has a Stormwater Compliance Policy which establishes requirements for post construction stormwater management. Additionally, the majority of SCSU's property is located within the City of St. Cloud and is subject to the city's Ordinances. SCSU's policy currently includes volume control, rate control, and water quality standards.

SCSU's procedures for site plan review include review and approval by SCSU staff and/or consultant.

2. Have you established written procedures for site plan reviews that you will conduct prior to the start of construction activity? ☒ Yes ☐ No
3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):
- a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance? ☒ Yes ☐ No
- b. All supporting documentation associated with mitigation projects that you authorize? ☐ Yes ☒ No
- c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))? ☐ Yes ☒ No
- d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of the agreement(s) and names of all responsible parties involved? ☐ Yes ☒ No

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

E.3.b-c SCSU currently does not allow for mitigation provisions to meet post construction stormwater requirements. SCSU will review its current requirements and assess whether or not to add mitigation provisions in accordance with permit requirements (Part III.D.5.a.(4)). This effort will be completed within 12 months of the date permit coverage is extended.

E.3.d SCSU is a unique MS4 in that they own and operate all stormwater management BMPs within their jurisdiction. SCSU policy identifies the Facilities Management Department as the responsible entity for planning, funding, operation, and maintenance of the storm water conveyance system and storm water BMPs. Because of the nature of the University's role as an MS4 and the fact that all structural BMPs are owned by the university, the development of a legal mechanism for long-term maintenance of structural BMPs is not necessary and does not apply.

4. List the categories of BMPs that address your post-construction stormwater management program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Regulatory Mechanism	Ongoing: Continue to enforce requirements. Annually: Review and update as needed.
Site Plan Review	Ongoing: Review site plans for compliance with SCSU policies, local ordinances, and permits.
BMP categories to be implemented	Measurable goals and timeframes
Regulatory Mechanism	Within 12 months of the date permit coverage is extended: Review and update as necessary to meet permit requirements (Part III.D.5.a).
Site Plan Review	Within 12 months of the date permit coverage is extended: Review and update site plan review process as needed, in accordance with permit requirements (Part III.D.5.b)
Documentation	Within 12 months of the date permit coverage is extended: Update program to include documentation requirements in accordance with permit requirements (Part III.D.5.c).

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Safety Administrator

F. MCM 6: Pollution prevention/good housekeeping for municipal operations

1. The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

SCSU's Facilities Management Department is involved with the day to day operations and maintenance of SCSU's infrastructure and properties. SCSU staff is an integral part of protecting water quality in receiving waters.

The following practices are implemented throughout SCSU facilities:

Storage of salt under shelter roofs

Readily accessible materials for spill and accident clean up at facilities

Conduct vehicle maintenance in covered garages.

Fuel storage and fueling operations are conducted in areas with secondary containment.

SCSU conducts regular inspections of its stormwater system. Staff inspects, at a minimum, 20% of the storm sewer system outfalls and ponds each year. SCSU has in place an on-going storm drain inspection and cleaning program to reduce pollutants, trash and debris. At a minimum, SCSU conducts yearly inspections of storm drain grates, trap manholes, grit chambers, sumps, catch basins, and other structural BMPs. Based on inspection findings, cleaning, repairs, and other maintenance measures are conducted as needed. SCSU currently inspects material stockpiles and handling areas on an annual basis.

SCSU implements a street/parking lot pavement-cleaning program for vehicle safety, pedestrian safety, water quality, and environmental reasons. The pavement cleaning program includes machine sweeping and vacuuming, which is conducted semi-annually and on an as needed basis.

SCSU documents all inspection and maintenance conducted on the storm sewer conveyance/treatment system and at SCSU facilities.

2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)?

☐ Yes ☒ No

3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

F.3 SCSU has maps and inventory of SCSU-owned facilities which contribute pollutants to stormwater discharges. SCSU will review and update as needed and in accordance with permit requirements (Part III.6.a). This effort will be completed within 12 months of the date permit coverage is extended.

4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Municipal Operations	Annually: Review, update, and implement BMPs for SCSU facilities and operations
Pavement-Cleaning Program	Ongoing: Track time, distance and/or pounds of sediment while conducting pavement cleaning operations.
	Annually: 20% of outfalls and ponds. Annually: Structural stormwater BMPs Quarterly: Increase inspections of material stock pile and handling areas to at least quarterly. Ongoing: Respond/ inspect reports of stormwater system issues.
Inspection	Annually: Review and update inspection frequency as needed.
Maintenance Measures	Ongoing: Conduct maintenance as required with site inspection findings and received reports.
Documentation	Ongoing: Document inspection and maintenance activities.
BMP categories to be implemented	Measurable goals and timeframes
Facility Inventory	Within 12 months of the date permit coverage is extended: Review and update facilities inventory as needed in accordance with permit requirements (Part III.6.a).
	Within 12 months of the date permit coverage is extended: Evaluate existing facility BMPs and develop a schedule for revising and implementing additional BMPs if needed.
Municipal Operations	Within 12 months of the date permit coverage is extended: Develop procedures and schedule to determine pond effectiveness in accordance with permit requirements (Part III.6.d)
Pond Assessment	Within 12 months of the date permit coverage is extended: Increase inspections of material stock pile and handling areas to at least quarterly to meet permit requirements (Part III.D.6.e(3))
Inspection	Within 12 months of the date permit coverage is extended: Review and update staff training program in accordance with permit requirements (Part III.D.6.g)
Training	Within 12 months of the date permit coverage is extended: Review and update program as required to include documentation requirements in accordance with permit requirements (Part III.D.6.h).
Documentation	

5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)? ☒ Yes ☐ No

a. If **no**, continue to 6.

b. If **yes**, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm>. Is a map including the following items available for your MS4:

- 1) Wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330? ☐ Yes ☒ No
- 2) Source water protection areas for surface intakes identified in the source water ☒ Yes ☐ No

- c. Have you developed and implemented BMPs to protect any of the above drinking water sources? ☒ Yes ☐ No
6. Have you developed procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)? ☐ Yes ☒ No
7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)-(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas? ☐ Yes ☒ No
8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:
- a. Addresses the importance of protecting water quality? ☐ Yes ☒ No
- b. Covers the requirements of the permit relevant to the duties of the employee? ☐ Yes ☒ No
- c. Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements? ☐ Yes ☒ No
9. Do you keep documentation of inspections, maintenance, and training as required by the Permit (Part III.D.6.h.(1)-(5))? ☒ Yes ☐ No

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

F.5 SCSU discharges to the Mississippi River which is a drinking water source for The City of Saint Cloud, Saint Paul, and Minneapolis. SCSU's discharge points to the Mississippi is within the outer source water management areas for Saint Paul and Minneapolis and are located downstream from Saint Cloud's intake location. SCSU will evaluate existing and potential source water protection BMPs and develop a schedule for revising and/or implementing additional BMPs if needed, in accordance with permit requirements (Part III.D.6.c) This effort will be completed within 12 months of the date permit coverage is extended.

F.6 SCSU will develop procedures and schedules for determining the TSS and TP effectiveness of SCSU owned/operated ponds in accordance with permit requirements (Part III.D.6.d). This effort will be completed within 12 months of the date permit coverage is extended.

F.7 SCSU will review and update its current inspection program, including updated inspections of material stockpiles and handling areas to at least quarterly, in accordance with permit requirements (Part III.D.6.e). This effort will be completed within 12 months of the date permit coverage is extended.

F.8.a-c SCSU will review and update their staff training program in accordance with permit requirements (Part III.D.6.g). This effort will be completed within 12 months of the date permit coverage is extended.

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:
- Safety Administrator*

VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date of the Permit? ☐ Yes ☒ No
1. If **no**, continue to section VII.
2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere_TMDL*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)? ☐ Yes ☒ No

1. If **no**, this section requires no further information.
2. If **yes**, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus Treatment Systems Form supplement to this document, with the following naming convention: *MS4NameHere_TreatmentSystem*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VIII. Add any Additional Comments to Describe Your Program

CITY OF MINNEAPOLIS

SOURCE WATER ASSESSMENT

September 2001

PWS ID 1270024

City Contact:

Mr. Adam Kramer
Minneapolis Public Works
4300 Marshall Street Northeast
Minneapolis, Minnesota 55421
Telephone Number: (612) 661-4923
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Minnesota Department of Health Contact:

Mr. Terry Bovee, Planner
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PART I

INTRODUCTION

The 1996 Amendments to the federal Safe Drinking Water Act (SDWA) require the Minnesota Department of Health (MDH) to complete source water assessments for public water systems.

The requirements of the SDWA addressed herein are intended to provide Minneapolis drinking water customers with 1) a general description of the area which supplies water to the Minneapolis Water Works; 2) an overview of why this water supply is susceptible to potential contaminants; 3) a description of the contaminants of concern which may impact the users of the public water supply; and 4) to the extent practical, the origins of the contaminants of concern.

The MDH, with the assistance of the Minneapolis Water Works, assembled a team that developed the information herein. The source water assessment team included resource persons representing the following agencies: Minneapolis Water Works, Hennepin County Environmental Services, Hennepin Conservation District, Metropolitan Council, United States Geological Survey, Minnesota Pollution Control Agency, Rivers Council of Minnesota, and MDH.

Over the past few years there has been a diverse group of upper Mississippi River interests involved in the planning and implementation of the Mississippi River Defense Network. This initiative has focused on protecting the Mississippi River, from its headwaters to the Twin Cities, from contamination from oil and chemical spills.

STATUS OF THE SOURCE WATER PROTECTION AREA

Although not a requirement of the SDWA, the cities of Minneapolis, St. Paul, and St. Cloud intend to use source water assessments as the basis and framework for the development and implementation of a source water protection plan. A cooperative approach is beneficial because the public water supplies for Minneapolis, St. Cloud, and the majority of the public water supply for St. Paul are drawn from the Mississippi River. Current discussions include the establishment of a coordinating entity that would guide the development and implementation of source water protection plans for the Upper Mississippi River watershed.

DESCRIPTION OF THE SOURCE WATER

The water supply for the city of Minneapolis is the Mississippi River. The water intake and water treatment plant are located on the Mississippi River in Fridley. The watershed for the Mississippi River, above the city's water intake, is approximately 19,000 square miles. Typical draw from the river by the Minneapolis Water Works is 65 million gallons per day while flow is typically 3.9 billion gallons per day.

SOURCE WATER SENSITIVITY

In determining the sensitivity of a source water, the intrinsic physical properties of the geologic setting or landscape within the watershed must be considered. The large quantities of water in the Mississippi River and the rate at which the river water flows helps attenuate contaminants and affects their movement to the public water supply intake. Seasonal changes will also influence the sensitivity of the river to contamination. Other factors influencing the sensitivity of a surface-water body include topography, hydrology, geology, vegetation, and the distribution of various soil types within the subwatersheds of the Mississippi River. The closer the source of contamination is to the intake the greater the impact will be on the quality of the water used by Minneapolis based on the factors listed in this section. The farther the contaminant is from the intake the more likely that the factors described in this section will help attenuate the movement of contaminants to the intake.

SOURCE WATER ASSESSMENT AREA

The source water assessment area for the city of Minneapolis includes three distinct nested areas. The **inner-emergency response area** is designed to help the city of Minneapolis address contaminant releases which present an immediate (**acute**) health concern to water users. This geographic area is defined by the amount of time the city of Minneapolis needs to be notified, shut off the surface-water intake, and a “buffer” to accommodate unanticipated delays in notification and shut down. The **outer source water management area** is designed to protect water users from long-term (**chronic**) effects related to low levels of chemical contamination or the periodic presence of contaminants at low levels in the surface water used by the city of Minneapolis. Also, this area should protect users from contaminants such as pathogens which may be 1) usually present at treatable levels in the source water and 2) occasionally present an acute health concern under certain conditions, such as the low stage of the Mississippi River. The **entire watershed** is designed to provide the water supplier with a broad perspective in which to prioritize specific types of lands uses that may impact the water quality of the source water used by them.

The **inner-emergency response area**, as shown in Figure 1, can be described as subwatersheds adjacent to the Mississippi River main stem beginning at the public water intake or river mile 858.6 (as measured from the confluence of the Ohio River) and extending to river mile 884.6 which is at the confluence of the Elk River and the Mississippi River. This area encompasses portions of the Mississippi River up to the city of Elk River and the lower portions of the Crow and Rum Rivers. The inner-emergency response area also includes areas extending short distances up Rice, Coon, and Elm Creeks; the Rum River; and up the Crow River to St. Michael.

The **outer source water management area** also shown in Figure 1 can be described as those minor watersheds directly adjacent to the Mississippi River between Elk River and St. Cloud and the subwatershed extending up the Crow River to Rockford. Additional areas, such as the Rice Creek watershed, are either small subwatersheds that flow directly into the inner-emergency response area or, in some instances instead of including an entire minor watershed, the buffer area was defined by the distance between a specific land use and the inner-emergency response area. An example of land use determining where the boundary line is compared to a watershed boundary would be using a bridge or pipeline crossing a river or stream thereby defining the area downstream from the crossing as a buffer.

The assessment area described as the **entire watershed** (Mississippi River Basin) is shown as an inset map in Figure 2. Because the cities of Minneapolis, St. Paul, and St. Cloud all draw water from the Mississippi River and have common interests in drinking water issues, the source water assessment areas have been stacked to provide a connection between the three public water suppliers. Figure 2 also shows the composite source water assessment areas for these three public water suppliers.

PART II

POTENTIAL CONTAMINANTS OF CONCERN

The contaminants of concern are the contaminants regulated under the federal SDWA. They are divided into organic chemicals, inorganic chemicals, radionuclides, disinfection byproducts, and microorganisms. A listing can be found at: <http://www.epa.gov/safewater>. Of greatest concern are petroleum products, pesticides, microorganisms, and plant nutrients. The Minneapolis Water Works has also identified pharmaceuticals and endocrine disrupting chemicals as emerging issues. These types of potential contaminants are not well understood at this time.

SOURCES OF CONTAMINANTS

To the extent practical, the table below is a listing of point sources of contamination and an **estimate** of the numbers of each type located in the **inner-emergency response area** and the **outer source water management area**.

The potential sources of contamination listed in the table below represent data collected from a number of state and federal data bases. Editing the data sets for duplication and the accuracy of the locations for potential contaminant sources was not possible to perform as part of the preparation of the source water assessment.

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

AREA	TOTAL	GENERAL TYPE OF POTENTIAL SOURCE
Inner Emergency Response Area	8	Aggregate Source Information System - Active Gravel Pit
Inner Emergency Response Area	1	Aggregate Source Information System - Commercial Aggregate
Inner Emergency Response Area	8	Aggregate Source Information System - Inactive Gravel Pit
Inner Emergency Response Area	3	Aggregate Source Information System - MnDOT Gravel Pit
Inner Emergency Response Area	936	EPA - Resource Conservation Recovery Act Information System
Inner Emergency Response Area	7	EPA - Resource Management Plan (RMP)
Inner Emergency Response Area	73	EPA - Toxic Release Inventory System (TRIS)
Inner Emergency Response Area	11	Golf Courses
Inner Emergency Response Area	54	Minnesota Department of Agriculture (MDA) Licensed Agriculture Chemical
Inner Emergency Response Area	8	MDA Licensed Feed
Inner Emergency Response Area	13	MDA Licensed General Retail
Inner Emergency Response Area	37	MDA Licensed Government Facility
Inner Emergency Response Area	3	MDA Licensed Horticulture Center
Inner Emergency Response Area	81	MDA Misc
Inner Emergency Response Area	6	MDA Seed
Inner Emergency Response Area	40	MDA Unknown
Inner Emergency Response Area	66	MDH - Hazardous Substance Emergency Events Surveillance
Inner Emergency Response Area	150	Metro Council - Mississippi River Crossing Data
Inner Emergency Response Area	4207	Minnesota Geological Survey (MGS) Located Wells
Inner Emergency Response Area	4019	MGS Unlocated Wells
Inner Emergency Response Area	1603	Minnesota Pollution Control Agency (MPCA) Licensed Hazardous Waste Generator

AREA	TOTAL	GENERAL TYPE OF POTENTIAL SOURCE
Inner Emergency Response Area	7	MPCA Salvage Yards
Inner Emergency Response Area	10	MPCA Feedlot Inventory
Inner Emergency Response Area	490	MPCA Leaking Underground Storage Tanks
Inner Emergency Response Area	1	MPCA CERCLIS Site
Inner Emergency Response Area	1	MPCA Hazardous waste generator
Inner Emergency Response Area	6	MPCA Hazardous Waste Generator Investigation and Clean Up List Facility
Inner Emergency Response Area	55	MPCA Metro Dump Inventory
Inner Emergency Response Area	4	MPCA No Further Remedial Action Planned
Inner Emergency Response Area	5	MPCA National Priorities List
Inner Emergency Response Area	1	MPCA Out-state Dump Inventory
Inner Emergency Response Area	6	MPCA Permanent List of Priority Site
Inner Emergency Response Area	4	MPCA Superfund Treatment, Storage, or Disposal Facility
Inner Emergency Response Area	9	MPCA Permitted Solid Waste Site
Inner Emergency Response Area	59	MPCA Voluntary Investigation and Clean Up Site
Inner Emergency Response Area	757	MPCA Registered Storage Tanks (TABS)
Inner Emergency Response Area	10	National Pollutant Discharge Elimination System
Inner Emergency Response Area	78	US Army Corps of Engineers (USACE) - Above Ground Storage Tanks
Inner Emergency Response Area	220	USACE Agricultural Pesticide Applicators
Inner Emergency Response Area	8	USACE Boat Landings
Inner Emergency Response Area	21	USACE Containment and Diversion Sites
Inner Emergency Response Area	25	USACE Fertilizer Licensees
Inner Emergency Response Area	1	USACE Pesticide Dealers
Inner Emergency Response Area	4	USACE Pipeline Crossings
Inner Emergency Response Area	531	USACE Sara Title III Hazardous Waste Sites
Inner Emergency Response Area	11	USACE Transportation Crossings
Inner Emergency Response Area	444	USACE Underground Storage Tanks
Inner Emergency Response Area	10	US Geological Survey (USGS) Cemeteries
Outer Source Water Management Area	36	Aggregate Source Information System - Active Gravel Pit
Outer Source Water Management Area	10	Aggregate Source Information System - Commercial Aggregate
Outer Source Water Management Area	17	Aggregate Source Information System - Inactive Gravel Pit
Outer Source Water Management Area	3	Aggregate Source Information System - MnDOT Gravel Pit
Outer Source Water Management Area	656	EPA - Resource Conservation Recovery Act Information System
Outer Source Water Management Area	5	EPA - Resource Management Plan
Outer Source Water Management Area	27	EPA - Toxic Release Inventory System Site
Outer Source Water Management Area	11	Golf Courses
Outer Source Water Management Area	58	MDA Licensed Ag Chemical
Outer Source Water Management Area	21	MDA Licensed Feed
Outer Source Water Management Area	17	MDA General Retail Licensed
Outer Source Water Management Area	44	MDA Government Facility License
Outer Source Water Management Area	4	MDA Horticultural Center
Outer Source Water Management Area	63	MDA Miscellaneous

AREA	TOTAL	GENERAL TYPE OF POTENTIAL SOURCE
Outer Source Water Management Area	16	MDA Seed
Outer Source Water Management Area	19	MDA Unknown
Outer Source Water Management Area	57	MDH Hazardous Substance Emergency Events Surveillance
Outer Source Water Management Area	4343	MGS Located Wells
Outer Source Water Management Area	7899	MGS Unlocated Wells
Outer Source Water Management Area	837	MPCA Licensed Hazardous Waste Generator
Outer Source Water Management Area	9	MPCA - Salvage Yards
Outer Source Water Management Area	46	MPCA Feedlot Inventory
Outer Source Water Management Area	337	MPCA Leaking Underground Storage Tanks
Outer Source Water Management Area	3	MPCA CERCLIS Site
Outer Source Water Management Area	1	MPCA De-listed Permanent List of Priorities
Outer Source Water Management Area	25	MPCA Metro Dump Inventory
Outer Source Water Management Area	4	MPCA No Further Remedial Action Planned Site
Outer Source Water Management Area	6	MPCA Out-state Dump Inventory Site
Outer Source Water Management Area	1	MPCA Permanent List of Priority Site
Outer Source Water Management Area	2	MPCA Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility
Outer Source Water Management Area	16	MPCA Permitted Solid Waste Site
Outer Source Water Management Area	45	MPCA Voluntary Investigation and Clean Up Site
Outer Source Water Management Area	649	MPCA Registered Storage Tanks
Outer Source Water Management Area	11	National Pollutant Discharge Elimination System
Outer Source Water Management Area	1	Nuclear Sites
Outer Source Water Management Area	100	USACE Above Ground Storage Tanks
Outer Source Water Management Area	58	USACE Agricultural Pesticide Applicators
Outer Source Water Management Area	7	USACE Boat Landings
Outer Source Water Management Area	42	USACE Containment and Diversion Sites
Outer Source Water Management Area	12	USACE Fertilizer Licensees
Outer Source Water Management Area	3	USACE Pesticide Dealers
Outer Source Water Management Area	4	USACE Pipeline Crossings
Outer Source Water Management Area	178	USACE Sara Title III Hazardous Waste Sites
Outer Source Water Management Area	8	USACE Transportation Crossings
Outer Source Water Management Area	349	USACE Underground Storage Tanks
Outer Source Water Management Area	33	USGS Cemeteries

To the extent practical, the table below is an estimate of percentages of land uses found within the Minneapolis source water assessment area (inner-emergency response area and outer source water management area) reflecting non-point sources of potential contamination.

**LAND USES WITHIN THE SOURCE WATER ASSESSMENT AREA
FOR THE CITY OF MINNEAPOLIS**

LAND USE	OUTER AREA	INNER AREA	% OUTER	% INNER	TOTAL ACRES	TOTAL %
Open Water	20290.416	6268.421	6.565	5.507	26558.837	6.280
Low Intensity Residential	19679.720	25692.831	6.367	22.571	45372.551	10.728
High Intensity Residential	8194.805	11985.303	2.651	10.529	20180.108	4.772
Commercial/Industrial/ Transportation	6971.856	8711.873	2.256	7.653	15683.729	3.708
Quarries/Strip Mines/Gravel Pits	1842.319	687.200	0.596	0.604	2529.519	0.598
Barren Transitional	11.342	166.129	0.004	0.146	177.471	0.042
Deciduous Forest	45662.776	9592.334	14.773	8.427	55255.110	13.065
Evergreen Forest	991.659	453.463	0.321	0.398	1445.122	0.342
Mixed Forest	715.222	290.892	0.231	0.256	1006.114	0.238
Shrubland	7.117	4.448	0.002	0.004	11.565	0.003
Pasture/Hay	70386.856	15843.631	22.773	13.918	86230.487	20.389
Row Crops	85604.667	14952.050	27.696	13.135	100556.717	23.777
Small Grains	4996.767	1230.511	1.617	1.081	6227.278	1.472
Urban/Recreational Grasses	5092.175	5626.145	1.647	4.943	10718.320	2.534
Woody Wetlands	10255.071	4093.399	3.318	3.596	14348.470	3.393
Emergent Herbaceous Wetlands	28384.031	8232.835	9.183	7.232	36616.866	8.658
Total	309086.799	113831.465	100.000	100.000	422918.264	100.000

Both point sources (such as industrial and wastewater treatment plant discharges) and non-point sources (such as runoff from agricultural and urban areas) are present in the inner-emergency response area and the outer source water management area.

In the entire Upper Mississippi River watershed, forestry/logging, mining, and recreation and tourism are predominant industries in the northern and eastern counties of the watershed, along with scattered agricultural activities. More intensive agriculture dominates the land uses in the southern and western portions of the watershed. The southern and eastern portions of the watershed are increasingly dominated by urban land uses. Approximately 30 cities are on the stretch of the Mississippi River from its headwaters to the Twin Cities. Public ownership of land is more predominant in the northern reaches, and private ownership is more predominant in the southern reaches.

The Sauk and Crow Rivers in particular are significant contributors of contaminants to the Mississippi River. Forms of pollution in the Mississippi River, and many of its tributaries, include suspended solids, nutrients, oxygen-using materials, metals, pathogenic microorganisms, and several organic and inorganic chemical constituents. The Mississippi River Defense Network included an inventory of potential oil and chemical spill sources within one mile of the Mississippi and near certain tributaries between the Mississippi River headwaters and St. Anthony Falls. Within this corridor, more than 3,300 potential spill sources were identified, including pipeline, highway, railroad river crossings and parallels, above- and below-ground petroleum and chemical storage tanks, agricultural chemical storage facilities, and hazardous waste storage facilities.

RESULTS OF MONITORING THE SOURCE WATER

Source water monitoring results can be found in the various programs present in the Mississippi River basin. Some of those programs include: Minnesota Pollution Control Agency's TMDL program, Riverwatch, County Water Planning, Minnesota Department of Natural Resources fisheries monitoring, MDH's Fish Consumption Advisory Handbook, and Clean Water Partnership diagnostic studies. Also, the United States Geological Survey conducted extensive monitoring of the entire Mississippi main stem during the period 1987-1992 and another data set (1962-1995) includes physical, chemical, and biological properties with some sites sampled above the Minneapolis water intake. The public water supplier also provides a continuous monitoring program for finish water.

For the past four years, the MDH has conducted a limited study at the Minneapolis intake for all of the SDWA pesticides and nitrates. Grab samples of both raw and treated drinking water have been collected and analyzed. These samples are collected over the May-June time frame each year to determine if additional monitoring is needed. The results of sampling for pesticides/nitrates over the past four years have not indicated any problems during this typically peak flow period.

Monitoring conducted in the Upper Mississippi River Basin (including areas outside of the source water protection areas) the Minnesota Pollution Control Agency determined that a small percentage of locations monitored or surveyed had water quality fully supporting the designated uses for the water body being monitored or surveyed. Nearly two-thirds of the sites had threatened water quality or did not support the designated use. Most monitoring upstream of the public water system intake is generally related to swimmable and fishable goals. A greater emphasis on drinking water standards in the future would be beneficial.

SUSCEPTIBILITY OF THE SOURCE WATER TO CONTAMINATION

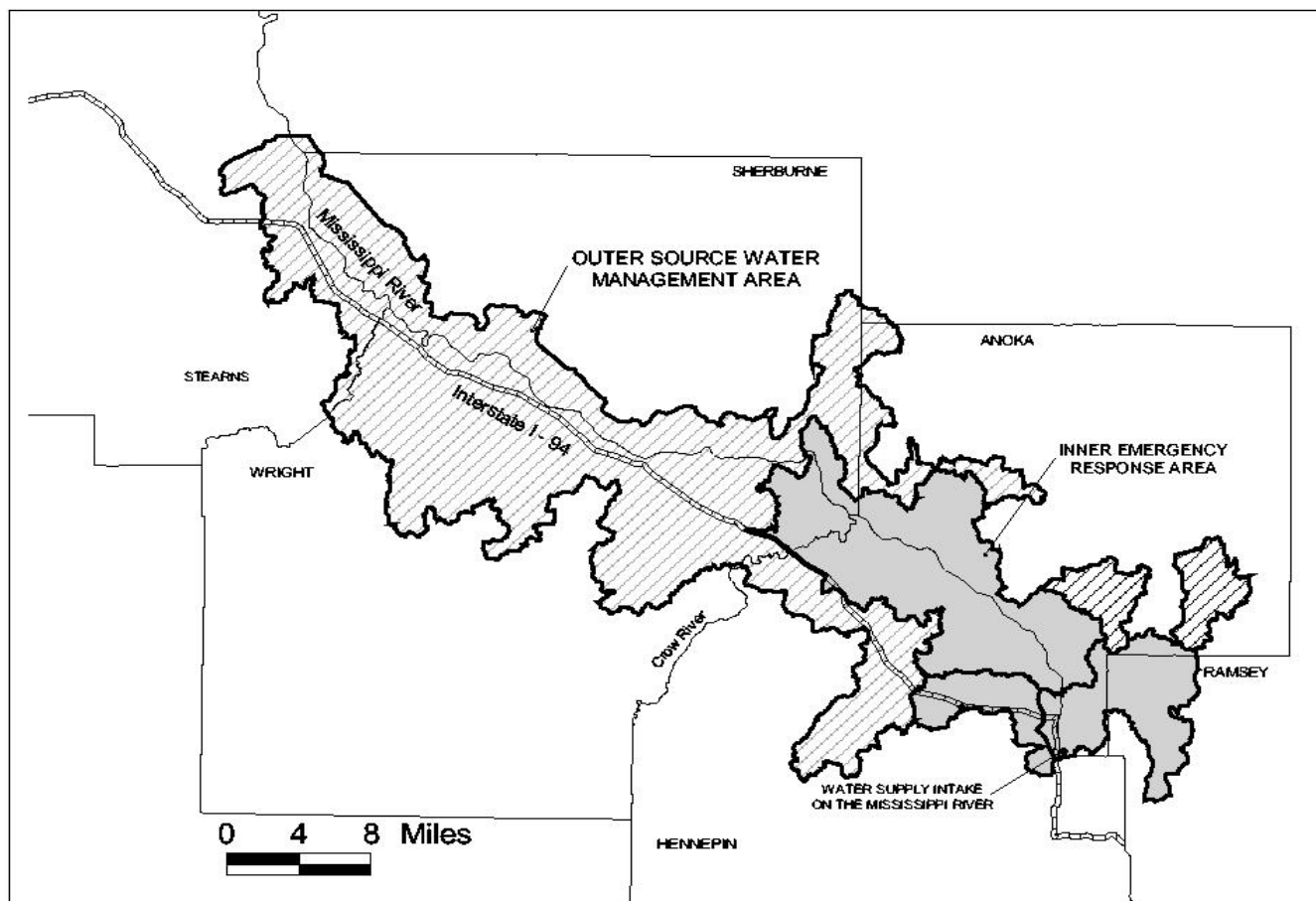
Susceptibility is defined as the likelihood that a contaminant will enter a public water supply at a level which may result in an adverse human health impact. The determination of susceptibility is on a scale of low, medium, and high. The overall susceptibility of any surface water is determined to be high because there is no practical means of preventing all potential contaminant releases into surface waters. However, a susceptibility determination for a specific public water supply system is based on comparing the sensitivity of the surface-water intake to the presence of a source which may release a contaminant of concern. This secondary analysis allows for differentiation between surface water based public water supply systems. The sensitivity of the source for Minneapolis is considered high based on the sensitivity factors. Based on a comparison of the sensitivity of the surface-water intake to the presence of potential contaminant sources, the susceptibility of the Minneapolis Water Works intake is considered to be high for a surface water based public water supply system. While it has been determined that the Minneapolis source water is highly susceptible to the source water's potential contaminant sources, it is noted that historically the city of Minneapolis Water Works has effectively treated this source water to meet drinking water standards.

USING THIS ASSESSMENT

Protecting the drinking water source is a wise and relatively inexpensive investment in the community's future. The overall intent of this assessment is to provide background information for the community to use in developing a local Drinking Water Protection Program. The assessment benefits the community by providing the following:

- ***A basis for focusing limited resources within the community to protect the drinking water source.***
The assessment provides the community with information regarding activities within the **source water protection area** that may directly affect your water supply.
- ***A basis for informed decision making regarding land use within the community.***
The assessment provides the community with a significant amount of information regarding where your drinking water comes from (the source) and what the risks are to the quality of that source. Knowing where the resource is allows communities' planning authorities to make informed decisions regarding proposed land *uses* within the source water assessment area that are compatible with both the drinking water resource and the vision of growth embraced by your community.
- ***A basis for informed source water planning efforts for the composite source water assessment areas for Minneapolis, St. Paul, and St. Cloud.***

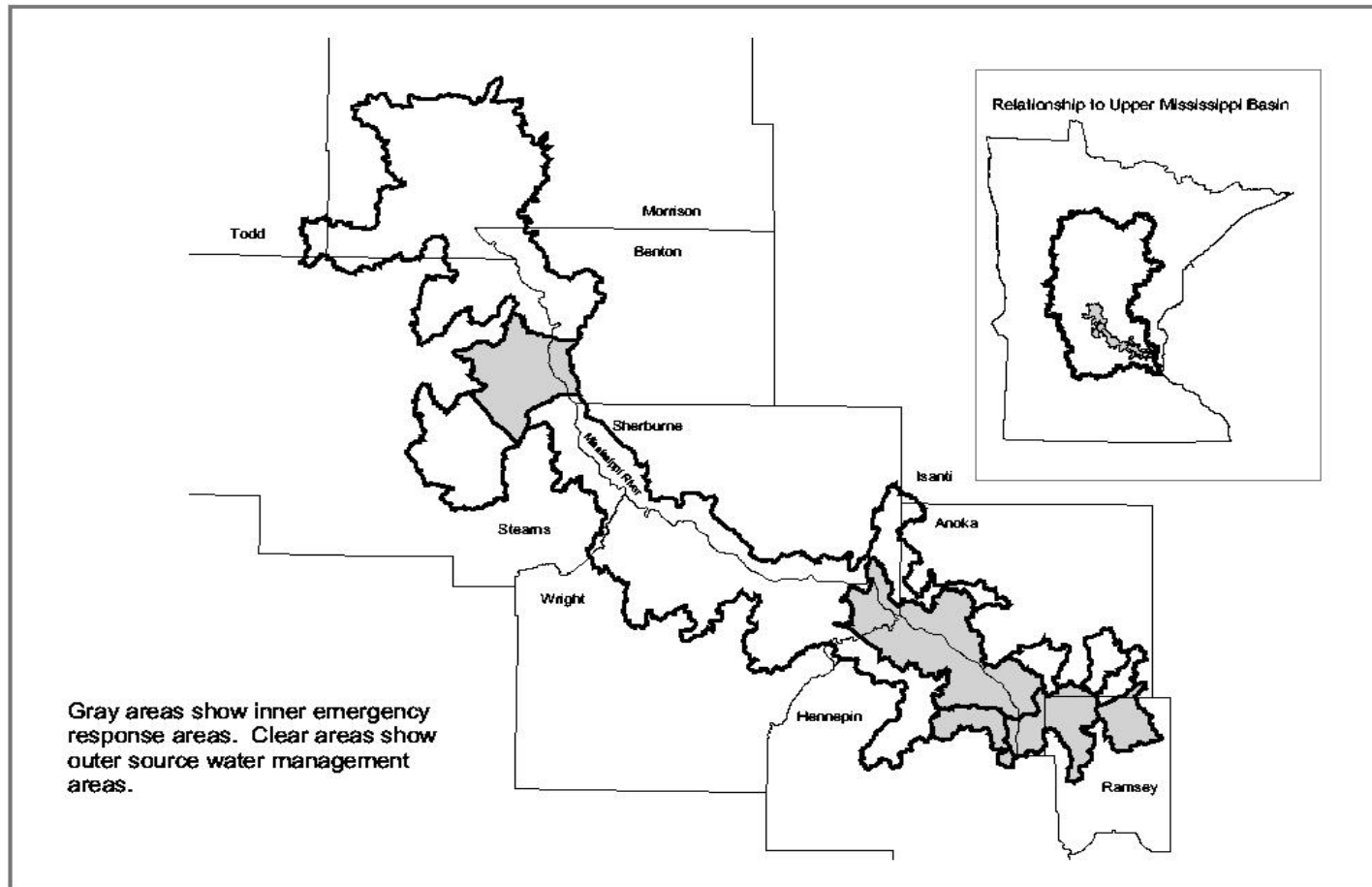
SOURCE WATER ASSESSMENT AREAS FOR THE CITY OF MINNEAPOLIS



Prepared by the Minnesota Department of Health August, 2001

FIGURE 1
SOURCE WATER ASSESSMENT AREAS FOR THE CITY OF MINNEAPOLIS

COMPOSITE SOURCE WATER ASSESSMENT AREAS FOR THE MISSISSIPPI RIVER



Prepared by the Minnesota Department of Health August, 2001

FIGURE 2
COMPOSITE SOURCE WATER AREAS FOR THE CITIES OF MINNEAPOLIS, ST. PAUL, AND ST. CLOUD